NAD C160 Stereo Pre-Amplifier

• 6 line level inputs incl. 2 Tape in/outputs with dubbing facility • Switchable MM and MC phono input • 2 line level preamp outputs; one is variable from 0dB to –12dB • Gold plated in and output sockets • Pure "Class A" discrete amplifier modules • Independent headphone amplifier • Bass & Treble control with Tone Defeat switch • Full Remote Control • "Blue Velvet" Alps motorized volume control • Input switching through hermetically sealed relays • 12V trigger • NAD Link

With the arrival of the all new NAD Model C160 pre-amplifier you can get the best of both worlds: Ultimate performance combined with the convenience of remote control. Its outward simplicity belies the sophistication of the circuitry inside.

Features:
With 6 Line inputs (two of which are Tape In/Out) and a MM/MC phono input available it's unlikely you will run out of inputs to connect your sources to. The C160 is fully remote controlled and comes supplied with the NAD C Series system remote control. As the C160 has NAD Link, the remote control will also operate many other NAD products such as CD players, tuners etc. The headphone socket will drive virtually any non-electrostatic headphones.

It is fashionable to omit tone controls nowadays: However, provided that the tone controls are properly designed, they can really be a useful tool to make improvements to the overall sound. The C160 tone controls only work at the frequency extremes leaving the critical mid-band essentially unaltered. The tone control circuits can be completely bypassed by using the tone defeat switch.

For remote on/off switching of ancillary components in a system, such as power amplifiers or active speakers, the C160 is equipped with a 12V trigger system. When switching the pre-amplifier on, the 12V trigger output is also activated which in turn can activate a 12V trigger input and switch on the remote devices.

Unique is the Variable Pre-out 2 facility. Many systems can benefit from the use of multiple power amplifiers for "Bi-Amping" (using separate power amplifiers to drive the bass and treble section of a loudspeaker). Many speakers are all ready set up for this with separate inputs for the low and high frequency sections. But not all power amplifiers are identical in gain (amplification factor). With the Variable Pre-out 2 facility differences in loudness between power amplifiers up to 12dB can be dialed out precisely.

The low output impedance on the Pre-outputs allow the C160 to drive several power amplifiers in parallel and/or the use of long interconnect cables (without the degradation of the performance that can so often become apparent when long cables are used).

Design:
Following NAD's "Music First" design brief the C160 utilizes completely new, innovative circuit topology which allows for investment in high specification, close tolerance components. Metal film resistors, polypropylene capacitors, hermetically sealed relays and the Alps "Blue Velvet" motorized volume control are a few examples of this.

Special attention has been paid to the power supply section of the C160. The toroidal transformer has 4 separate secondary windings followed by 6 main low-noise regulators. From here no less than 6 super low-noise subsidiary regulators and active filters are used to maximize supply rejection for all sections of the C160 to more than 100dB.

Often other manufacturers disregard the importance of a phono stage. NAD recognizes the performance potential of a good turntable and has made sure that the C160 will not be the limiting factor. The MC phono stage is built pretty much like a small "power amp" so that a wide range of MC cartridges can be used while keeping noise very low combined with a high overload margin. Likewise, the MM phono stage also can cope with a wide range of cartridges and operates entirely in Class A. The built-in infrasonic filter filters out unwanted rumble components from the turntable or record itself but without introducing any significant group delays. To ensure accurate RIAA response the entire circuit uses 1% tolerance metal film resistors and 2% tolerance capacitors.

Essentially the same circuitry used for the phono circuit is also used for both the line input and output stage: A modular FET amp operating in Class A. The line output stage is capable of driving 10V into 600 ohms. This, combined with the high input impedance of the line input amplifier (500

kohms) means that the C160 can be combined with a vast range of sources and power amplifiers. For the inputs themselves the NAD engineers have opted for using relays rather then using electronic switching between sources. All input and output sockets are gold plated.

Often it is said that performance and convenience don't go together, but the NAD Model C160 is the exception to the rule. Despite its reasonable price the Model C160 deserves to partnered with the finest of ancillary components.

SPECIFICATIONS - NAD C160

Measured in accordance with EIA Standard RS-490(IHF A-202).

PHONO INPUTS

Input impedance (R and C)	MM	47kohm +470pF
	MC	100ohm + 1nF
Input sensitivity	MM	2.10mV
	MC	115uV
Input overload at 20Hz/1kHz/20kHz	MM	20mV, 230mV, 2V
	MC	1.3mV, 12mV, 110mV
Signal/Noise ratio	MM	80dB(1k Source)
(A-weighted with cartridge connected)		77dB (IHF Source)
	MC	81dB(10ohm Source)
		76dB(100ohm Source)
THD(20Hz-20kHz) and IM distortion		
(5V rms at Tape out)	MM/MC	0.03%
RIAA response accuracy	MM	±0.4dB
	MC	±0.4dB
Infrasonic Filter		12dB/Oct,-3dB@10Hz

Line Level Inputs (CD, Video, Tuner, Tape1, Tape2, Aux)

Input impedance (R and C)		500kohm, 320pF
Input sensitivity ref. 0.5V		150mV
Signal/Noise ratio, A-weighted ref. 0.5V		>100dB
Frequency response, 20Hz-20kHz	Tone Defeat	±0.2dB
	Tone In	±0.3dB
Voltage gain(Max Volume)		10.5dB
THD + SMPTE + IHF I.M.	at 1V in	<0.01%
	at 5V in/out	<0.03%
Maximum i/p level	20Hz/1k/20k	17V

Line Level Outputs

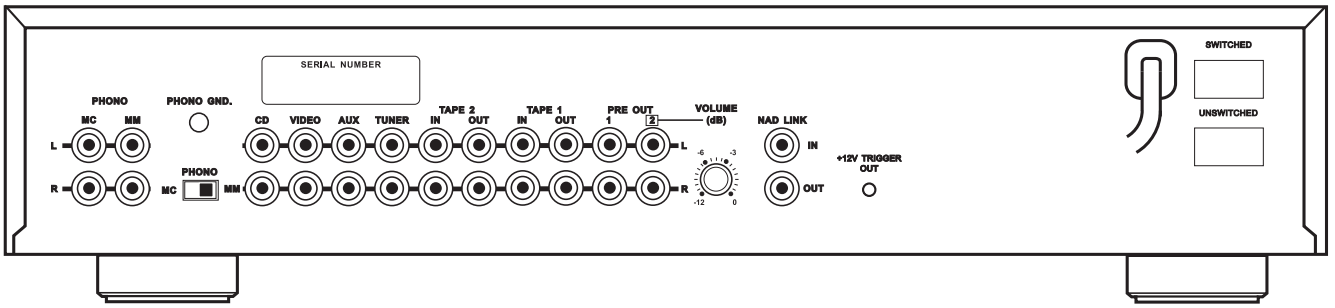
Output impedance	Pre out1	75ohm
	Pre out2 (Variable)	350ohm
	Tape	Source Z +1kohm
	Headphones	100ohm
Maximum output level	Pre out	15V(IHF Load)
	Tape	15V(IHF Load)
	Phones	10V(600ohm)
		190mV(8ohm)

Controls (Volume Setting @12:00 position)

Treble	±5dB@10kHz
Bass	±5dB@100Hz

Physical Specifications

Dimensions in mm (W x H x D)	435 x 80 x 285mm	17 1/8" x 3 1/8" x 11 1/4"
Net weight	4.8kg	10.6 lbs
Shipping weight	6.0kg	13.2 lbs



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